



UVA Child Development Labs 2020 Newsletter

Your guide to everything that's been happening in our labs!



What's in this issue:

- Opening Letter
- CDL Updates
- What's Happening in the Early Development Lab?
- What's Happening in the BabyLab?
- What's Happening in the Early Social Development Lab?
- What's Happening in the Jaswal Lab?
- Popular Press
- Scientific Publications

Opening Letter

Dear Parents,

As we approach the end of 2020 – a year like no other in so many ways – we'd like to first say that we hope you and yours are doing well during these challenging and unusual times. We'd also like to take this opportunity to share with you some of the things we have been working on at the UVA Child Development Labs. Your child may have participated in one or more of the studies highlighted in this newsletter and for that we are grateful, thank you for your time and continued support. On the following pages, you can read about a few of this year's projects – from studying preschooler's concentration behaviors and understanding of fairness, to learning more about infants' brain development and how children and adults think about their autistic peers.



As many of you know, the Child Development Labs (CDL) is an umbrella group that includes four separate labs: the Early Development Lab, the Babylab, the Early Social Development Lab, and the Jaswal Lab. Although all in-person research in our four labs had to be put on hold in March due to the pandemic, we have continued to work remotely as much as possible and are increasingly shifting many of our studies online. This means that your child can still contribute to science! You will find more information in this newsletter about how our online studies work and how your child can participate.

We have had some exciting successes this year. Dr. Tobias Grossmann was awarded a grant from the National Science Foundation to study the developmental origins of social interaction processing in the human brain. Dr. Amrisha Vaish received a National Institutes of Health grant to study the impact of inequality on children's social behaviors. Dr. Angeline Lillard received funding from various sources for an endowed graduate fellowship and to begin to establish and study Montessori childcare in lower income Charlottesville neighborhoods. Dr. Lillard was also elected as a Fellow of the American Association for the Advancement of Science (AAAS).

You can keep up to date on all things related to the CDL by following our [Facebook page](#), where we will share news stories about our research, opportunities to participate in new online studies, and announce the launch of the new CDL website next year. If you know of other families that might be interested in participating in our studies, please pass along our information to them. We are always looking for new families to join our efforts in helping us better understand child development!

Thank you again for your invaluable support of our research.



*Dr. Angeline
Lillard*

Early Development Lab



*Dr. Tobias
Grossmann*

Babylab



*Dr. Amrisha
Vaish*

Early Social
Development Lab



*Dr. Vikram
Jaswal*

Jaswal Lab



CDL Updates

Continuing Our Research Online

Not even 2020 can stop us from doing new research! Since March, the Child Development Labs have been hard at work coming up with new ways to continue our research remotely. Many of our current studies are now being conducted online, either through online surveys or during scheduled Zoom appointments. Just like our in-person studies back in Gilmer Hall, these online studies may involve your child playing a game or listening to a story and answering some questions, and we will likely ask you to answer some questions about your child as well. Studies involving online surveys for parents can be completed at any time, while studies that include a Zoom appointment can be scheduled for a time that's convenient for your family. Studies will typically take anywhere from 30-60 minutes, and some even offer monetary compensation for participating. We currently have studies available [for children ages 4 to 10](#), and surveys [for parents of children ages 6 to 12](#), or [anyone who has a connection to autism](#). We hope you'll consider signing up to participate in our online studies as we wait for the day when we can safely see you again in person!

Living Lab Lives On

The Child Development Labs are still partnering with local children's museums like the Virginia Discovery Museum through the Living Lab program so that we can share our science with the public. We hope to find new ways to continue this partnership remotely through online programs in the coming months, so stay tuned!

Gilmer Hall Gets a Makeover

UVA's psychology building, Gilmer Hall, is currently being renovated! In the meantime, all four CDL labs have been temporarily relocated to West Complex. While we haven't been able to take full advantage of our new space yet because of the pandemic, we hope you'll get a chance to come check it out when it's safe to participate in in-person studies again.

Visit each lab's website by clicking on their logo below!

EARLY DEVELOPMENT LAB
University of Virginia





Some New CDL Friends

Since our last newsletter in the fall of 2018, there have been some new graduate students and postdoctoral scholars who have joined the Child Development Labs.



Kayden Stockwell earned bachelor's degrees in psychology and human development at Binghamton University, State University of New York. He joined the Jaswal Lab in 2019 and is interested in how autistic people interact and communicate with each other and with neurotypical people.



Zoë Sargent earned her BS in Developmental Psychology from Liberty University before coming to work in the Jaswal Lab in the fall of 2019. Her research interests include language and communication development in autistic individuals as well as communication between parents and autistic children.

Lee LeBoeuf is a second year graduate student from Dayton, Ohio. She received her BA in Psychology from Ohio Wesleyan University in 2017. After graduating, she taught at a public charter elementary school in one of Cleveland's most underserved communities. As an RA in the EDL during the summer of 2018, Lee became very interested in Montessori education. She plans to study the outcomes for Montessori students—particularly the potential Montessori education holds to "close the gap" between urban and suburban student populations.



Christina Carroll is a second year graduate student, originally from Stony Brook, NY. She received her BS in Psychology from Michigan State University. She taught middle-school science and social studies on the Rosebud Sioux Reservation in South Dakota for two years through Teach for America. She then attended the Montessori Institute of Milwaukee to obtain her elementary teacher certification through the Association Montessori Internationale. She has spent the past 10 years in elementary Montessori schools teaching children ranging from the ages of 6 to 12 years old. Christina's main research interests lie in examining the long-term impact of Montessori education on former Montessori students and the impact of mindfulness practices in the Montessori environment.



Kenn Dela Cruz joined the Babylab in the fall of 2020 because he was interested in children's emotional development, how it relates to their cognitive development, and the impacts of the socialization they receive from caregivers. He is particularly interested in questions around how children come to understand their own emotions and the emotions of others. Additionally, he is interested in how these processes can vary across different cultural contexts.



Dr. Jessie Stern is a postdoctoral fellow in the Early Social Development Lab and the Babylab. She studies how parenting and biological factors shape development in infancy, early childhood, and adolescence. Her current research is examining how parenting contributes to children's development of social competence and physical health.



Congrats to Our Graduates!

Since 2018, we've also had to say farewell to three of our PhD students who successfully defended their dissertations, and to two of our postdoctoral scholars.



Dr. Caroline Kelsey- Dr. Kelsey graduated from the Babylab in May 2020 and is now a postdoctoral research fellow at Boston Children's Hospital in Boston, MA.

Dr. Jessica Taggart- Dr. Taggart graduated from the Early Development Lab in May 2020 and is now a postdoctoral research associate at the Center for Teaching Excellence at UVA in Charlottesville, VA.

Dr. Sierra Eisen- Dr. Eisen graduated from the Early Development Lab in May 2020 and is now a postdoctoral fellow at the Cognitive Development Labs at Wesleyan University in Middletown, CT.

Dr. Janine Oostenbroek- Dr. Oostenbroek finished her postdoc in the Early Social Development Lab and moved back to her home country, Australia, in December 2018. She aspires to work in the field of perinatal psychology, which helps to support parents with their emotional and mental wellbeing through pre-conception, pregnancy, the birth experience and the year following birth.

Dr. Dermina Vasc- Dr. Vasc finished her postdoc in the Early Development Lab and has welcomed a new child into her family! She is currently taking time off to care for and nurture their development.

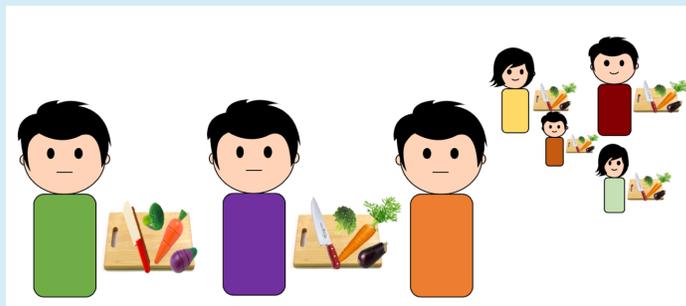


What's Happening in the Early Development Lab?

Is Pretend Play as Good as the Real Thing?

Dr. Jessica Taggart

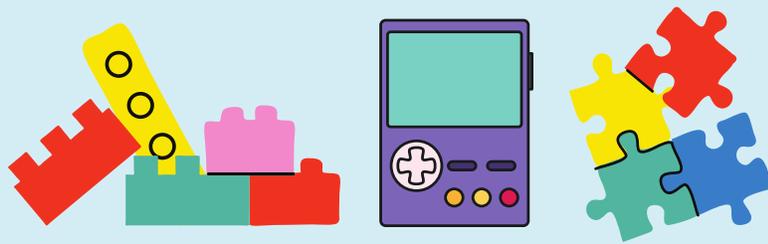
Pretend play is a popular childhood pastime, and yet our recent studies revealed that preschoolers prefer real activities to pretend ones, and parents recognize this. Children and parents alike believe pretending is well suited to activities that children cannot really do due to fear or a lack of ability or permission. Does this mean that they believe pretend play will develop children's confidence and skills for real activities? And do they believe pretending is as good as the real thing for doing so? Recent graduate Dr. Jessica Taggart worked with 5- and 6-year-olds and parents to find out. Children were told stories about three characters learning a new skill (like cutting vegetables): one learned by pretending, one by really doing, and one by watching. Children were asked to rate each character's confidence and skill, and we found that they believed really doing an activity to be twice as good at developing confidence and skills compared to pretending and watching. However, to learn to do different activities themselves, children were ambivalent. Through parent surveys and interviews, we found that parents considered pretend play important to development and a viable way to develop children's confidence and skills, but some were hesitant about the extent to which pretend play could do so. Both children and parents valued pretend play for providing safe practice. These studies revealed that children and parents do not perceive pretending to be as good as real activities for developing children's confidence and skills, but they do believe it plays a useful role in learning and development.



Parent-Child Spatial Play

Dr. Sierra Eisen

When a child builds with a set of blocks, she is doing more than playing. She is engaging in spatial reasoning—mentally considering objects in space and their relations to each other and their environment. Spatial play can advance children's spatial skills, but increasingly, such play occurs on digital devices. For her dissertation, recent graduate Dr. Sierra Eisen examined how mothers and their children engaged together in spatial play with physical toys, like blocks and puzzles, and digital games, like Minecraft. She found that mothers and children used more spatial words (i.e., words describing shapes, dimensions, locations, etc.) during play with physical toys than during digital play. Mothers also directed more questions to their children during physical play, including pedagogical questions designed to promote learning. How parents communicate with their children is an important part of their development and this study suggests that the way parents and children talk changes when playing with physical or digital toys.

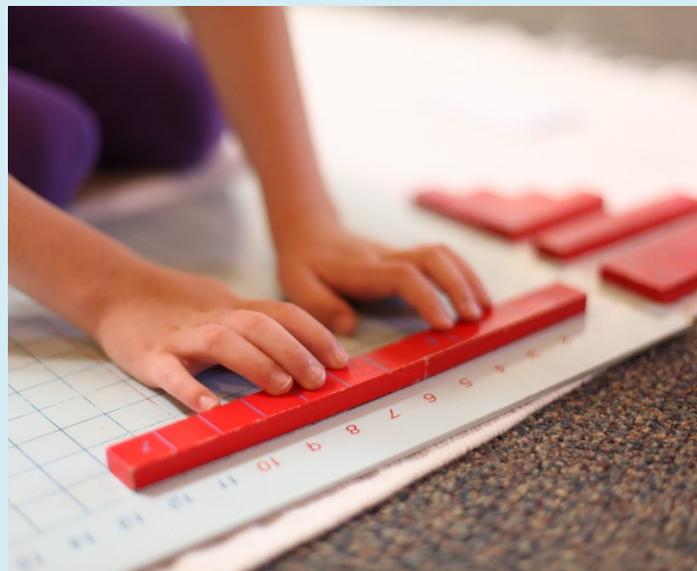




Observing and Measuring Concentration in Preschoolers

Ian Becker

The intensity with which young children can concentrate is impressive. Graduate student Ian Becker has been researching preschool-age children's concentration. Along with graduate student Christina Carroll, he asked Montessori preschool teachers what they look for when observing concentration in their classrooms. They found that when teachers rate concentration, they weigh children's gaze and physical manipulation of material more than body movements. Teachers not only demonstrated this when rating concentration, but also described looking for these characteristics. Ian has also been developing methods for measuring concentration for research purposes and has designed a format for observing young children's concentration to be used by researchers and teachers. Observations include the same aspects of children's gaze and manipulation of material that teachers saw as important, as well as accounting for the goals that children appear to be working towards. These studies on preschooler's concentration will help us better understand engagement and learning in early childhood.



Preschool Contexts and Children's Understanding of Number

Abha Basargekar

Montessori education is the most prevalent system of alternative education in the US. One of the striking features of the Montessori method is its teaching of math, beginning with a systematic introduction to quantities and properties of number. Montessori preschools teach children about numbers using a range of manipulatives, which provide spatial representations that are introduced to children in a specific order. In order to understand the role of preschool context on children's understanding of number, graduate student Abha Basargekar played some number games with children from Montessori preschools and non-Montessori preschools. So far, her findings suggest that Montessori students were better at telling which of a given pair of numbers is the larger one, and these students were also more likely to accept unconventional but correct ways of counting as being correct. Unfortunately, data collection for this project is currently on hold due to the pandemic, so we'll have to wait for the final results until the study has been completed.





Teachers' Beliefs About Learning

Christina Carroll

Education reform policies aiming to improve students' learning outcomes often rely on teachers to change classroom practices. However, these policies overlook the role that teachers' beliefs play in shaping classroom practices. Each teacher possesses beliefs about children as learners and about practices that best support learning. These beliefs consciously or unconsciously inform teachers' decision-making and influence classroom practice. Graduate student Christina Carroll is conducting an online survey assessing teachers' personality traits and pedagogical beliefs among conventional and Montessori educators. She hopes to identify mechanisms that shape teacher beliefs and understand the relationship between teacher beliefs and student learning outcomes.

What Are the Factors that Contribute to Liking School?

Lee LeBoeuf

By the end of 12th grade, most children will have spent 18,720 hours, or 2.14 full years in school. Clearly school is an important part of our childhoods, but looking back on it, how much do we remember actually liking school? To find out, graduate student Lee LeBoeuf, along with EDL lab coordinator Allyson Snyder, surveyed adults on how much they remember liking school, and about other school characteristics that might be important for school liking. They found that overall, adults remember feeling mostly neutral or lukewarm about school – unless that adult attended a Montessori school. Adults who had attended a Montessori school at any point from elementary school to high school remembered liking school more than adults who had attended all non-Montessori schools. For all students, regardless of school type and grade, feeling a sense of community and interest in schoolwork were the best predictors of greater school liking.



What's Happening in the Babylab?

Brain, Behavior, and the Gut Microbiome in Infancy

Dr. Caroline Kelsey

For her dissertation, recent graduate Dr. Caroline Kelsey decided to focus on the early development of the gut-brain axis, or how the gut and brain communicate with and influence one another over time. She explored how variability in infants' gut microbiomes can influence their early brain and behavioral development. She found that when infants were only two weeks old, the diversity of bacteria in their bellies was linked to how different areas of their brains communicated with each other. She also found that these differences in brain connectivity were related to infants' temperaments as well. Overall, her study suggests that the gut microbiome is an important biological factor that we should take into account when studying human development and health.





Variety is the Spice of Life – And a Key to Brain Function

Dr. Meghan Puglia & Cabell Williams

Recent Neuroscience PhD graduate Dr. Meghan Puglia and project coordinator Cabell Williams have been working on an ongoing study linking differences in the gene that allows the body to use oxytocin (an important social hormone), brain activity, and social behavior over the first 16 months of a child's life. This study collects saliva samples for DNA analysis to assess a molecular tag on the oxytocin receptor gene, electroencephalography (EEG) to see infants' brain function while they listen to speech sounds and look at faces, eye-tracking to see how social information captures the infant's attention, and a free-play period between baby and their caregiver to see how the baby engages socially. We have recently published the first results from this study based on data from our first 65 participants at 4 months of age. Our results show that variability is key in brain function! We found that babies with a molecular tag on their DNA that may enhance their ability to use oxytocin showed more variable neural activity in response to speech sounds, and these babies vocalized more themselves. These results suggest that early-life differences in the oxytocin system may establish flexible brain networks that help us understand the complex and dynamic social worlds in which we develop. We plan to bring the babies who have participated in this study back to our lab as toddlers to see how these factors continue to impact social development. We look forward to continuing this research in 2021 and finding out more about the interplay of genetics, neurology, and child development!



Calling All Newborns!

Cat Thrasher

Cat Thrasher and the Babylab are currently looking for newborns to participate in a study looking at whether parental touch changes attention to emotional facial expressions early in development. From very early in development, infants pay more attention to faces than other physical objects, but less is known about whether they allocate more attention to specific emotional expressions early in the first year, and how their perception of emotion might change when parents are in physical contact with them. In this study, we will use functional near-infrared spectroscopy (fNIRS) to measure the infant's neural blood flow—a tool akin to fMRI but much more infant-friendly—while infants are presented with happy and angry facial expressions on a computer screen. While infants watch the presentation, parents will be asked to either hold their child on their lap or place their child in a high chair while the parent sits nearby. If touch does influence infants' neural response to emotion at this very early age, this would help us understand how the social regulation of emotion occurs between infants and their caregivers. If you would be interested in participating in this upcoming study, please email participate@uvababylab.org to let us know!



Another Good Reason to Hold Your Child's Hand

Cat Thrasher

Graduate student Cat Thrasher is on a quest to understand how parents emotionally and physically regulate their children. In her first study, 4- and 5-year-old children found happy faces on a touch screen more quickly if their parents were holding their hand, but not if their parents were merely present in the room but not touching. This ability to find the happy faces more quickly while holding a parent's hand could mean that children are experiencing a general increase in positive affect, but more research is needed to know for sure. In her second study, young competitive gymnasts ages 7 to 10 years attempted more difficult gymnastics moves on the balance beam when their parents were watching them, compared to when their parents were absent, but this was not the case for adolescent gymnasts ages 11 and older. When this same group of gymnasts and their parents came into the lab, children and caregivers both displayed more positive emotions when they were asked to hold each others' hand than when they merely sat next to each other in a room. Taken together, these studies show us that parents can alter children's perception of the world around them by simply being physically present in the same room, or offering a hand to hold!



What's Happening in the Early Social Development Lab?

What Do Children Think About Nature?

Dr. Jessie Stern

How do young children understand actions that impact people and the environment? Postdoctoral fellow Dr. Jessie Stern has been curious about how children think and feel about the natural world. In our ongoing studies, we show young children stories about actions toward people, plants, and animals and ask them if they think these actions were okay or not, and why. Our early findings suggest that even preschoolers meaningfully distinguish between helpful and harmful actions toward both people and nature – but we still have more questions! We will be continuing this work online with studies for children ages 4 to 10, so stay tuned!





Developing a Preference for Fairness

Johanna Chajes

How do children decide whether to behave selfishly or fairly, and how quickly do they make this decision? Graduate student Johanna Chajes explored these questions in a recent study with 4- to 9-year-old children. We asked children to choose between two different distributions of stickers for themselves and another child—one fair and one selfish—and timed how long it took them to make their choice. We found that 4- to 6-year-old children were more likely to choose the selfish distribution, while 7- to 9-year-olds preferred the fair distribution. We also found that younger children made these selfish choices quickly, but older children were not any faster to choose the fair option compared to the selfish one. Our findings suggest that around age 7, children's behavior starts to reflect a desire for fairness, and they become better at overcoming selfish impulses in favor of fair outcomes.



How Do Children View Fairness?

Meltem Yucel

It is easy to see how breaking a social rule, like eating spaghetti with your hands, is not as bad as breaking a moral rule, like hitting someone else. Children as young as 3 already understand the difference between these two kinds of rules, but how do they think about issues of fairness? Graduate student Meltem Yucel is looking to answer these questions by conducting studies with 4-, 6-, and 8-year-old children. In these studies, children were told a short story that included either a fairness violation, such as one child receiving more chalk than others, or another type of rule violation. The goal was to see how children would react to fairness violations—would they treat it more like someone had broken a moral rule or a social rule? Four-year-olds believed moral violations were more serious than either fairness or social violations, and that fairness and social violations were similarly serious. In contrast, 6- and 8-year-olds thought fairness violations were somewhere in the middle, believing that they were more serious than social violations but still less serious than moral violations. These studies remind us that the relationship between fairness and morality is complex, but even young children seem to be able to pick up on these nuances from early on in development.



How Do Children Think About Other's Intentions to Help?

Stefen Beeler-Duden

Children frequently receive help from parents, teachers, and even peers. Do children think people are acting altruistically or out of self-interest? What do they think about individuals who help for selfish or benevolent reasons? Graduate student Stefen Beeler-Duden is looking to answer these questions by conducting a study with children from 3 to 7 years of age. The aim of this study is to examine how children understand people's intentions when they help. In this online study, children are presented with a series of stories about children helping one another. Sometimes the helper's intentions are ambiguous, while other times the helper's intentions are clearly benevolent or selfish. Children are asked what they think about the person who helped and whether they should be rewarded for their actions. Data collection is ongoing for this study.



What's Happening in the Jaswal Lab?

Studying Parents' and Children's Understanding of Emotions

Andrew Lampi

Understanding what emotions another person is feeling is a complicated process. We are constantly trying to decode what the people around us are feeling based on their facial expressions, and some people may have intense facial expressions while others, such as autistic people, may display emotion more subtly. Additionally, when we study children's understanding of emotion, parents are often asked to report on their children's internal experiences, but these parent reports don't always match up with what children report about their own emotions. To study this, graduate student Andrew Lampi wanted to see if parent and child reports of the child's alexithymia—the ability to distinguish one's own emotions—were well-aligned. A small sample of about 30 parent-child pairs suggests that the reports are not strongly related, and that the parent-based measure of children's alexithymia may underestimate the child's report. Now, in a new ongoing study, he is hoping to investigate whether mothers of autistic children detect emotions differently than mothers of non-autistic children and adult women with no children.





Understanding the Stigmatization of Autistic College Students

Kayden Stockwell

Autistic people, by definition, differ in social behavior from non-autistic individuals. One characteristic common to many autistic people is a special interest in a particular topic—something spoken about with such frequency and intensity that it may be stigmatized by non-autistic peers. Graduate student Kayden Stockwell conducted an online survey to investigate college students' interest in interacting with peers described as behaving in ways characteristic of autism (or not), and additionally described as having a special interest (or not). Having a lower interest in interacting with a particular character is indicative of higher stigma. We found that autistic characters were more stigmatized, but autistic characters with a special interest were not more stigmatized than those without one. Only among non-autistic characters was having a special interest associated with greater stigmatization. We are continuing to try and understand the stigmatization of autistic people and have recently started looking at whether this may differ depending on the setting or activity, such as going to a social event compared to daily carpooling!

How Should We Talk About Autism?

Jaswal Lab

Labels are useful because they can help categorize the world, but how they are used to describe people can be controversial. For example, in the disability community, there is considerable debate over the use of person-first (e.g., “person with autism”) versus identity-first (e.g., “autistic person”) language. In this project, graduate students Zoë Sargent, Andrew Lampi, and Kayden Stockwell are interested in understanding 1) what labels people with a connection to autism prefer, and 2) how particular labels may contribute to or reduce the stigmatization of people who have a diagnosis of autism. In the first piece of this project, our recent survey found that many members of the North American autism community (and especially autistic adults) prefer identity-first terms (i.e., “autistic” and “autistic person”) over person-first terms. The second piece of this project will investigate whether using a person-first or identity-first label, compared to no label at all, impacts how well people remember someone else's face. So far the results have been mixed, so we are now coming up with new ways to answer this question. Stay tuned!

What Do Non-Autistic Children Think About Their Autistic Peers?

Zoë Sargent

From a young age, children learn from adults and peers about their society's unwritten rules for how to behave. Even by 18 months of age, children can understand these rules and use them to judge whether other people are behaving appropriately. Because children take rules for behavior seriously, and because autism is characterized by unusual behaviors, some non-autistic children might think their autistic peers are “breaking the rules” just by behaving unusually. Graduate student Zoë Sargent is interested in how children use social rules, as well as information about autism, to evaluate their autistic peers' behavior. For this study, we met with 4- to 7-year-old children over Zoom to tell them 6 stories about children behaving in a variety of ways. Half of the children were told that the unusually-behaving characters were autistic, and half were not. We finished data collection for this project in November and look forward to sharing the results soon!





Want to read more about what CDL has been up to? Check out the Popular Press and Scientific Publications from the different labs below!



Popular Press

Early Development Lab:

- “The Science of Montessori with Professor Angeline Lillard”. *The Montessori Education podcast*, [Nov. 10, 2020](#).
- “When so many school children can’t read, it’s time to do something different”. *The Dallas Morning News*, [Nov. 1, 2020](#).
- “‘Lockdown Learning’ Questions Conventional Children’s Education”. *Child & Family Blog*, [May 2020](#).
- “This is why children’s TV is so weird - and so mesmerising”. *Mosaic*, [Dec. 3, 2019](#).
- “A Public School Makes the Case for ‘Montessori for All’”. *Edutopia*, [April 25, 2019](#).
- “Pretend Play is Less Beneficial for Early Child Development than Play That’s Rooted in Real Life”. *Child & Family Blog*, [Oct. 25, 2018](#).
- “The ‘Montessori Mafia’: Why Tech Titans Like Jeff Bezos Support the Model”. *Education Week*, [Sept. 24, 2018](#).
- “Jeff Bezos Cites a Big Number, but Few Details in Plan for Low-Income Montessori Preschools”. *The New York Times*, [Sept. 21, 2018](#).
- “The human touch: Learning from apps and objects”. *Blog on Learning and Development*, [May 11, 2018](#).

Babylab:

- “The Microbiome: Tiny Bacteria, Lifelong Impact”. *UVA Today*, [Oct. 17, 2020](#).

- “Maternal Interaction May Influence the Epigenetics of Baby’s Social Development”. *UVA Today*, [Nov. 5, 2019](#).
- “UVA Babylab: The Mom & Baby Project”. *UVA College of Arts and Sciences video*, [July 12, 2019](#).
- “Is Your Toddler a Helper? This New Research May Explain Why”. *UVA Today*, [Sept. 25, 2018](#).

Early Social Development Lab:

- “The Science of Forgiveness”. *John Templeton Foundation video series*, [Dec. 1, 2020](#).
- “Eyes Wide Open: In New Findings, 3-Year-Olds React to Immorality”. *UVA Today*, [Nov. 11, 2020](#).
- “Generosity Breeds Generosity: 4-Year-Olds Who Receive Kindness Pay It Forward”. *UVA Today*, [Feb. 21, 2020](#).
- “What Young Kids Already Know About Forgiveness”. *Greater Good Magazine*, [June 5, 2019](#).
- “The Eyes Have It: People Donate More Money When They Think They Are Being Watched”. *UVA Today*, [Oct. 17, 2018](#).

Jaswal Lab:

- “Eye-tracking reveals agency in assisted autistic communication”. *Research Square video*, [July 8, 2020](#).
- “The Science and Lived Experience of Autism”. *Engaged UVA*, [May 28, 2019](#).



Scientific Publications

Early Development Lab:

- Eisen, S., & Lillard, A. S. (2020). Learning from Apps and Objects: The Human Touch. *Mind, Brain, and Education*.
- Eisen, S., & Lillard, A. S. (2020). Media Use and Development of Executive Function. *The International Encyclopedia of Media Psychology*.
- Metzger, M., & Taggart, J. (2020). A longitudinal mixed methods study describing 4th year baccalaureate nursing students' perceptions of inclusive pedagogical strategies. *Journal of Professional Nursing*.
- Taggart, J., Becker, I., Rauen, J., Al Kallas, H., & Lillard, A. S. (2020). What Shall We Do: Pretend or Real? Children's Choices and Parents' Perceptions. *Journal of Cognition and Development*.
- Taggart, J., Ellwood, M., Vasc, D., Chin, S., & Lillard, A. S. (2020). Parents' roles and question-asking during pretend and real activities. *Social Development*.
- Li, H., Eisen, S. & Lillard, A. S. (2019). Anthropomorphic media exposure and preschoolers' anthropomorphic thinking in China. *Journal of Children and Media*.
- Lillard, A. S. (2019). Shunned and Admired: Montessori, Self-Determination, and a Case for Radical School Reform. *Educational Psychology Review*.
- Lillard, A. S., & McHugh, V. (2019). Authentic Montessori: The Dottoressa's View at the End of Her Life Part I. *Journal of Montessori Research*.
- Lillard, A. S., & Taggart, J. (2019). Pretend Play and Fantasy: What if Montessori Was Right? *Child Development Perspectives*.

- Taggart, J., Eisen, S., & Lillard, A. S. (2019). The current landscape of US children's television: Violent, prosocial, educational, and fantastical content. *Journal of Children and Media*.
- Vasc, D., & Lillard, A. S. (2019). Pretend and Sociodramatic Play. *The Encyclopedia of Child and Adolescent Development*.
- Taggart, J., Fukuda, E., & Lillard, A. S. (2018). Children's preference for real activities: Even stronger in the Montessori Children's House. *Journal of Montessori Research*.

Babylab:

- Kelsey, C. M., Prescott, S., McCulloch, J., Trinchieri, G., Valladares, T., Dreisbach, C., Alhusen, J., & Grossmann, T. (2020). Newborn gut microbiota composition is associated with functional brain connectivity and temperament. *Brain, Behavior, and Immunity*.
- Grossmann, T., Missana, M., & Vaish, A. (2020). Helping, fast and slow: Exploring intuitive cooperation in early ontogeny. *Cognition*.
- Jessen, S., & Grossmann, T. (2020). The developmental origins of subliminal face processing. *Neuroscience & Biobehavioral Reviews*.
- Jessen, S., & Grossmann, T. (2020). Neural evidence for the impact of trustworthiness on object processing in a gaze-cueing task in 7-month-old infants. *Social Neuroscience*.
- Puglia, M. H., Krol, K. M., Missana, M., Williams, C. L., Morris, J. P., Connelly, J. J., & Grossmann, T. (2020). Epigenetic tuning of brain signal entropy in emergent human social behavior. *BMC Medicine*.



- Kelsey, C. M. & Grossmann, T. (2019). A call for mapping the microbiota-gut-brain axis during human infancy. *Behavioral and Brain Sciences*.
- Kelsey, C. M., Krol, K. M., Kret, M. E., & Grossmann, T. (2019). Infants' brain responses to pupillary changes in others are affected by race. *Scientific Reports*.
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